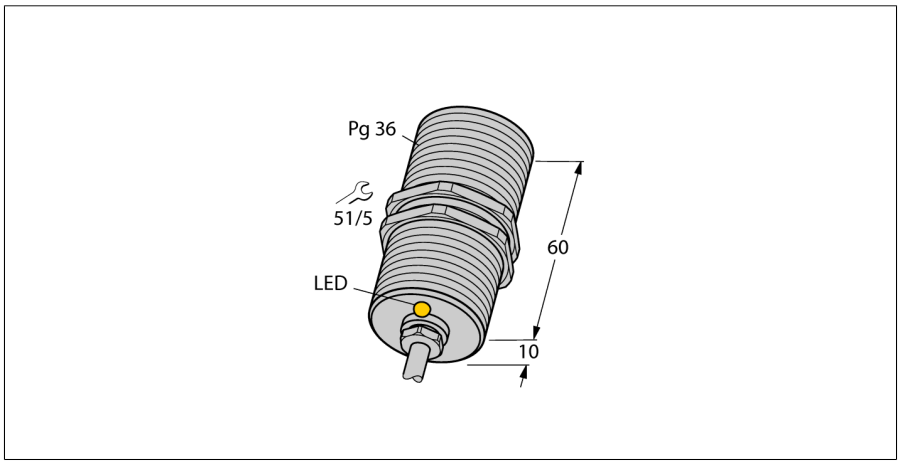
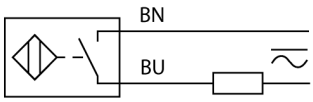
Inductive sensor
BI20-G47-AZ3X

Industrial Automation



- **Threaded barrel, PG36**
- **Chrome-plated brass**
- **AC 2-wire, 20…250 VAC**
- **DC 2-wire, 10…300 VDC**
- **NO contact**
- **Cable connection**

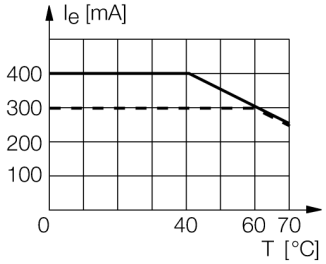
Wiring Diagram



Type designation	BI20-G47-AZ3X
Ident-No.	13088
Rated switching distance Sn	20 mm
Mounting conditions	Flush
Secured operating distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3…15 %
Ambient temperature	-25…+70 °C
Operating voltage	20…250VAC
Operating voltage	10…300 VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	≥ 50…≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I_e	≤ 6 V
Output function	2-wire, NO contact
Smallest operating current I_m	≥ 3 mA
Switching frequency	0.02 kHz
Design	Threaded barrel,G47
Dimensions	70 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, PA66-GF25
Max. tightening torque housing nut	90 Nm
Electrical connection	Cables
Cable quality	5.2mm, LifYY, PVC, 2
Cable cross section	3 x 0.75 mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED,Red

Functional principle

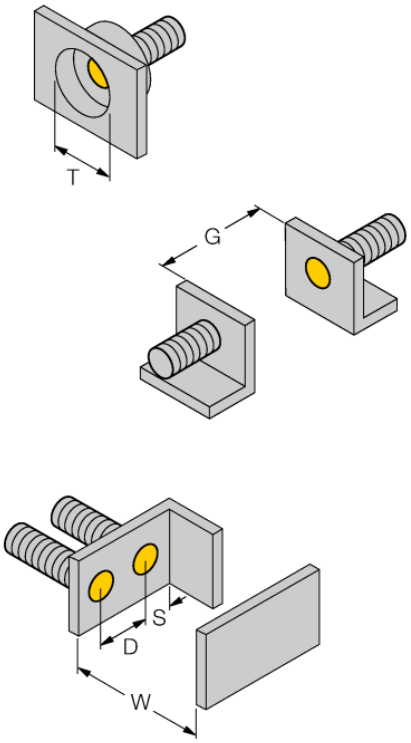
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.



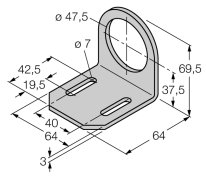
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Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn

Diameter active area B	Ø 47 mm



Accessories

Type code	Ident-No.	Description	
MB-47	69452	Mounting bracket; material: Steel plate, zinc-plated	

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